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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,514	02/12/2004	Donald J. Curry	117544	3670
27074	7590	04/11/2007		
OLIFF & BERRIDGE, PLC. P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER SHIKHMAN, MAX	
			ART UNIT	PAPER NUMBER
			2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.		Applicant(s)	
	10/776,514		CURRY ET AL.	
	Examiner		Art Unit	
	Max Shikhman		2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 1, line 2, attorney docket numbers should be replaced with patent or application numbers.

In [0007] "*Unfortunately, some image document formats, such as the portable document, format (PDF), do not currently fully support such three-layer mixed raster content decompositions of an original document.*" But in [0037], "*content (MRC) representation, which is now included in both TIFF and PDF standards, as well as the PostScript standard.*" The two statements are arguing with each other; the applicant needs to decide whether PDF supports MRC or not. Appropriate correction is required.

Claim Objections

2. Claim 4 is objected to because of the following informalities: "*a difference between color properties of the blobs are*" should be changed either to --*a difference between color properties of the blobs is--* or to --*differences between color properties of the blobs are--*. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-20** are rejected under 35 U.S.C. 102(b) as being anticipated by Fazzari (US-PAT-NO: 5887073). Fazzari discloses as follows.

() Regarding Claim 1:

a blob identifier that identifies one or more blobs in image data;

(Figure 5; 96, 98 and 100 were identified as blobs of 91.

Column 5, line 37, "FIG. 4, an attribute can be defined as a collection of points in red-green-blue space (RGB) space, which can be considered the same color for the sorting application."

Column 6, line 1, "The attribute images created by color classifier 64 contain blobs."

Column 10, lines 18-21, "object classifier 70 first identifies as objects all spatially contiguous groups of pixels, i.e. blobs, in each binary attribute plane and each binary property".)

a blob mapper that assigns a color index to each of one or more blobs based on a color property of each of the blobs; and

(Column 5, lines 55-56, "color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.")

a blob clusterer that assigns the blobs to one or more foreground planes based on the color index of each of the blobs.

(Figure 5; 96, 98 and 100 were identified as blobs of 91. They were assigned to planes 88, 89, 90 because they correspond to color clouds 92-94 in Figure 4. 96 belongs to color cloud 92; see Column 5, line 44 and Column 8, lines 35-45. The color classifier is a blob clusterer.

Column 5, line 58, "The color classifier does this by creating a binary image, or "attribute image," for each attribute from the 24-bit color image 91 that the color classifier processes.")

() Regarding Claim 2:

The apparatus of claim 1, wherein the blob clusterer separates blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigns each of the proximity groups to a separate foreground plane, a size of each of the foreground planes being set based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

(Column 6, lines 1-20, "The attribute images created by color classifier 64 contain "blobs", also referred to as "objects", or spatially contiguous groups of pixels which need further processing by the property isolation process 68 in FIG. 3. This processing includes the isolation of object properties into separate binary images, or "property images".")

Sizes of foreground planes are set based on spatial characteristics of blobs, which are not going to exceed the size of the original image 91 in Figure 5. Therefore, foreground planes are set to the maximum size of the blobs—size of the original image)

() Regarding Claim 3:

The apparatus of claim 1, wherein the blob clusterer assigns to a background plane one or more portions of the image data that are not assigned into any foreground plane.

(89 in Figure 5 is the "Background Attribute Image." It contains unassigned data.)

() Regarding Claim 4:

The apparatus of claim 1, wherein the blob mapper assigns an identical color index to each of the one or more blobs, if a difference between color properties of the blobs is within a predetermined tolerance.

(Column 5, lines 52-56, "each attribute will have a corresponding color cloud in RGB-space. Once all attributes have been defined for a given application and corresponding color clouds

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have been created, the color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.”)

() Regarding Claim 5:

A xerographic marking device incorporating the apparatus of claim 1.

(Column 7, lines 15-19 “Alternatively, any optical imaging device can be substituted for the camera, including a grey-scale video camera, a photocell device, a laser scanner, an ultraviolet camera, an infrared camera, a Magnetic Resonance Imaging (MRI) device, or a spectroscopic scanner.”)

() Regarding Claim 6:

A marking device incorporating the apparatus of claim 1.

(49 in Figure 2 is a pen, which is a marking device, incorporating the overall apparatus.

Column 7, lines 15-19 “Alternatively, any optical imaging device can be substituted for the camera, including a grey-scale video camera, a photocell device, a laser scanner, an ultraviolet camera, an infrared camera, a Magnetic Resonance Imaging (MRI) device, or a spectroscopic scanner.”)

() Regarding Claim 7:

A digital photocopier incorporating the apparatus of claim 1.

(Column 7, lines 15-19 “Alternatively, any optical imaging device can be substituted for the camera, including a grey-scale video camera, a photocell device, a laser scanner, an ultraviolet camera, an infrared camera, a Magnetic Resonance Imaging (MRI) device, or a spectroscopic scanner.”)

() Regarding Claim 8:

A method, comprising: identifying one or more blobs in image data;

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(Column 5, line 37, "FIG. 4, an attribute can be defined as a collection of points in red-green-blue space (RGB) space, which can be considered the same color for the sorting application."

Column 6, line 1, "The attribute images created by color classifier 64 contain blobs."

Column 10, lines 18-21, "object classifier 70 first identifies as objects all spatially contiguous groups of pixels, i.e. blobs, in each binary attribute plane and each binary property".)

assigning a color index to each of one or more blobs based on a color property of each of the blobs; and

(Column 5, line 56, "color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.")

assigning the blobs to one or more foreground planes based on the color index of each of the blobs.

(Column 5, line 58, "The color classifier does this by creating a binary image, or "attribute image," for each attribute from the 24-bit color image 91 that the color classifier processes."

Column 8, lines 35-45.)

() Regarding Claim 9:

The method of claim 8, further comprising: separating blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigning each of the proximity groups to a separate foreground plane.

(Column 6, lines 1-20, "The attribute images created by color classifier 64 contain "blobs", also referred to as "objects", or spatially contiguous groups of pixels which need further processing by the property isolation process 68 in FIG. 3. This processing includes the isolation of object properties into separate binary images, or "property images".")

() Regarding Claim 10:

The method of claim 8, further comprising: setting a size of each of the foreground planes based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

(Sizes of foreground planes are set based on spatial characteristics of blobs, which are not going to exceed the size of the original image 91 in Figure 5. Therefore, foreground planes are set to the maximum size of the blobs—size of the original image)

() Regarding Claim 11:

The method of claim 8, further comprising: assigning to a background plane one or more portions of the image data that is not assigned into any foreground plane.

(89 in Figure 5 is the “Background Attribute Image.” It contains unassigned data.)

() Regarding Claim 12:

The method of claim 8, further comprising: assigning an identical color index to each of the one or more blobs, if a difference between color properties of the blobs are within a predetermined tolerance.

(Column 5, lines 52-56, “each attribute will have a corresponding color cloud in RGB-space. Once all attributes have been defined for a given application and corresponding color clouds have been created, the color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.”)

() Regarding Claim 13:

A storage medium storing a set of program instructions executable on a data processing device, the set of program instructions comprising:

(Abstract: "control console displays a graphical user interface via a computer on which the control system is implemented and includes a software application pack specifically configured for processing a particular type of food.")

Column 4, lines 45-55, "A personal computer 27 implements a control processor 26 and memory-based software...")

instructions for identifying one or more blobs in image data;

(Column 5, line 37, "FIG. 4, an attribute can be defined as a collection of points in red-green-blue space (RGB) space, which can be considered the same color for the sorting application.")

Column 6, line 1, "The attribute images created by color classifier 64 contain blobs."

Column 10, lines 18-21, "object classifier 70 first identifies as objects all spatially contiguous groups of pixels, i.e. blobs, in each binary attribute plane and each binary property".)

instructions for assigning a color index to each of one or more blobs based on a color property of each of the blobs; and

(Column 5, line 56, "color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.")

instructions for assigning the blobs to one ore more foreground planes based on the color index of each of the blobs.

(Column 5, line 58, "The color classifier does this by creating a binary image, or "attribute image," for each attribute from the 24-bit color image 91 that the color classifier processes."

Column 8, lines 35-45.)

() Regarding Claim 14:

The storage medium of claim 13, further comprising: instructions for separating blobs having a same color index into one or more proximity groups based on a predetermined blob

separation distance, and then assigning each of the proximity groups to a separate foreground plane;

(Column 6, lines 1-20, "The attribute images created by color classifier 64 contain "blobs", also referred to as "objects", or spatially contiguous groups of pixels which need further processing by the property isolation process 68 in FIG. 3. This processing includes the isolation of object properties into separate binary images, or "property images".")

and instructions for setting a size of each of the foreground planes based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

(Sizes of foreground planes are set based on spatial characteristics of blobs, which are not going to exceed the size of the original image 91 in Figure 5. Therefore, foreground planes are set to the maximum size of the blobs—size of the original image)

() Regarding Claim 15:

The storage medium of claim 13, further comprising: instructions for assigning an identical color index to each of the one or more blobs, if a difference between color properties of the blobs are within a predetermined tolerance.

(Column 5, lines 52-56, "each attribute will have a corresponding color cloud in RGB-space. Once all attributes have been defined for a given application and corresponding color clouds have been created, the color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.")

() Regarding Claim 16:

16. The storage medium of claim 13, further comprising: instructions for assigning to a background plane one or more portions of the image data that is not assigned into any foreground plane.

(89 in Figure 5 is the "Background Attribute Image." It contains unassigned data.)

() Regarding Claim 17:

A apparatus, comprising: means for identifying one or more blobs in image data;

(Column 5, line 37, "FIG. 4, an attribute can be defined as a collection of points in red-green-blue space (RGB) space, which can be considered the same color for the sorting application."

Column 6, line 1, "The attribute images created by color classifier 64 contain blobs."

Column 10, lines 18-21, "object classifier 70 first identifies as objects all spatially contiguous groups of pixels, i.e. blobs, in each binary attribute plane and each binary property".)

means for assigning a color index to each of one or more blobs based on a color property of each of the blobs; and

(Column 5, line 56, "color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.")

means for assigning the blobs to one or more foreground planes based on the color index of each of the blobs.

(Column 5, line 58, "The color classifier does this by creating a binary image, or "attribute image," for each attribute from the 24-bit color image 91 that the color classifier processes."

Column 8, lines 35-45.)

() Regarding Claim 18:

The apparatus of claim 17, further comprising: means for separating blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigning each of the proximity groups to a separate foreground plane; and

(Column 6, lines 1-20, "The attribute images created by color classifier 64 contain

"blobs", also referred to as "objects", or spatially contiguous groups of pixels which need further processing by the property isolation process 68 in FIG. 3. This processing includes the isolation of object properties into separate binary images, or "property images".")

means for setting a size of each of the foreground planes based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

(Sizes of foreground planes are set based on spatial characteristics of blobs, which are not going to exceed the size of the original image 91 in Figure 5. Therefore, foreground planes are set to the maximum size of the blobs—size of the original image)

() Regarding Claim 19:

The apparatus of claim 17, further comprising: means for assigning an identical color index to each of the one or more blobs, if a difference between color properties of the blobs are within a predetermined tolerance.

(Column 5, lines 52-56, “each attribute will have a corresponding color cloud in RGB-space. Once all attributes have been defined for a given application and corresponding color clouds have been created, the color classifier 64 shown in both of FIGS. 3 and 5 will classify each 24-bit RGB pixel from color image 91 into exactly one of these attributes.”)

() Regarding Claim 20:

The apparatus of claim 17, further comprising: means for assigning to a background plane one or more portions of the image data that is not assigned into any foreground plane.

(89 in Figure 5 is the “Background Attribute Image.” It contains unassigned data.)

Conclusion

5. Prior art made of record and not relied upon is considered pertinent to applicant’s disclosure. DeLeeuw discloses, “Placing and monitoring transparent user interface elements in a live video stream as a method for user input.”
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Max Shikhman whose telephone number is (571) 270-1669. The examiner can normally be reached on Monday-Friday 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Max Shikhman
3/25/2007



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SUPERVISORY PATENT EXAMINER